

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

REQUEST FOR ACCESS TO AN ABANDONED APPLICATION UNDER 37 CFR 1.14Bring completed form to:
File Information Unit, Room 2E04
2900 Crystal Drive
Arlington, VA 22202-3514

Telephone: (703) 308-2733

In re Application of

Weiss

Application Number

08/311099

Filed

9-23-94

Paper No. #16

I hereby request access under 37 CFR 1.14(a)(1)(iv) to the application file record of the above-identified ABANDONED application, which is not within the file jacket of a pending Continued Prosecution Application (CPA) (37 CFR 1.53(d)) and which is identified in, or to which a benefit is claimed, in the following document (as shown in the attachment):

United States Patent Application Publication No. _____, page, _____ line _____

United States Patent Number 6497872, column _____, line, _____ or

WIPO Pub. No. _____, page _____, line _____

Related Information About Access to Applications Maintained in the Image File Wrapper System (IFW) and Access to Pending Applications in General

A member of the public, acting without a power to inspect, cannot order applications maintained in the IFW system through the FIU. If the member of the public is entitled to a copy of the application file, then the file is made available through the Public Patent Application Information Retrieval system (Public PAIR) on the USPTO internet web site (www.uspto.gov). Terminals that allow access to Public PAIR are available in the Public Search Room. The member of the public may also be entitled to obtain a copy of all or part of the application file upon payment of the appropriate fee. Such copies must be purchased through the Office of Public Records upon payment of the appropriate fee (37 CFR 1.19(b)).

For published applications that are still pending, a member of the public may obtain a copy of:
the file contents; the pending application as originally filed; or any document in the file of the pending application.

For unpublished applications that are still pending:

- (1) If the benefit of the pending application is claimed under 35 U.S.C. 119(e), 120, 121, or 365 in another application that has: (a) issued as a U.S. patent, or (b) published as a statutory invention registration, a U.S. patent application publication, or an international patent application publication in accordance with PCT Article 21(2), a member of the public may obtain a copy of: the file contents; the pending application as originally filed; or any document in the file of the pending application.
- (2) If the application is incorporated by reference or otherwise identified in a U.S. patent, a statutory invention registration, a U.S. patent application publication, or an international patent application publication in accordance with PCT Article 21(2), a member of the public may obtain a copy of the pending application as originally filed.

Janice Kent
Signature
Janice Kent
Typed or printed name

9-28-06

Date

RECEIVED

SEP 28 2006

FOR PTO USE ONLY

Approved by:

(initials)

Registration Number, if applicable

File Information Unit

Unit:

(703) 521-5115

Telephone Number



US006497872B1

(12) United States Patent
Weiss et al.**(10) Patent No.: US 6,497,872 B1**
(45) Date of Patent: Dec. 24, 2002**(54) NEURAL TRANSPLANTATION USING
PROLIFERATED MULTIPOTENT NEURAL
STEM CELLS AND THEIR PROGENY****(75) Inventors:** Samuel Weiss, Alberta (CA); Brent
Reynolds, Alberta (CA); Joseph P.
Hammang, Barrington, RI (US); E.
Edward Baetge, Barrington, RI (US)**(73) Assignee:** NeuroSpheres Holdings Ltd., Calgary
(CA)**(*) Notice:** Subject to any disclaimer, the term of this
patent is extended or adjusted under 35
U.S.C. 154(b) by 0 days.**(21) Appl. No.:** 08/486,313**(22) Filed:** Jun. 7, 1995**Related U.S. Application Data****(63)** Continuation-in-part of application No. 08/270,412, filed on
Jul. 5, 1994, now abandoned, which is a continuation of
application No. 07/726,812, filed on Jul. 8, 1991, now
abandoned, application No. 08/486,313, which is a continu-
ation-in-part of application No. 08/385,404, filed on Feb. 7,
1995, now abandoned, which is a continuation of application
No. 07/961,813, filed on Oct. 16, 1992, now abandoned,
which is a continuation-in-part of application No. 07/726,
812, application No. 08/486,313, which is a continuation-
in-part of application No. 08/359,945, filed on Dec. 20,
1994, now abandoned, which is a continuation of application
No. 08/221,655, filed on Apr. 1, 1994, now abandoned,
which is a continuation of application No. 07/967,622, filed
on Oct. 28, 1992, now abandoned, which is a continuation-
in-part of application No. 07/726,812, filed on Jul. 8, 1991,
now abandoned, application No. 08/486,313, which is a
continuation-in-part of application No. 08/376,062, filed on
Jan. 20, 1995, now abandoned, which is a continuation of
application No. 08/010,829, filed on Jan. 29, 1993, now
abandoned, which is a continuation-in-part of application
No. 07/726,812, application No. 08/486,313, which is a
continuation-in-part of application No. 08/149,508, filed on
Nov. 9, 1993, now abandoned, which is a continuation-in-
part of application No. 07/726,812, application No. 08/486,
313, which is a continuation-in-part of application No.
08/311,099, filed on Sep. 23, 1994, now abandoned, which
is a continuation-in-part of application No. 07/726,812,
application No. 08/486,313, which is a continuation-in-part
of application No. 08/338,730, filed on Nov. 14, 1994, now
abandoned, which is a continuation-in-part of application
No. 07/726,812.**(51) Int. Cl.⁷** A01N 63/00; A01N 65/00;
A61K 48/00**(52) U.S. Cl.** 424/93.1; 424/93.2; 424/93.21**(58) Field of Search** 424/93.1, 93.2,
424/93.21; 514/44**(56)****References Cited****U.S. PATENT DOCUMENTS**4,753,635 A 6/1988 Sagen et al. 604/49
4,980,174 A 12/1990 Sagen et al. 424/563
5,082,670 A 1/1992 Gage et al. 424/520
5,175,103 A 12/1992 Lee et al. 435/172.3
5,411,883 A 5/1995 Boss et al. 435/240.2
5,612,211 A 3/1997 Wilson et al. 435/378
5,753,506 A 5/1998 Johs 435/240.23**FOREIGN PATENT DOCUMENTS**EP 0 233 838 8/1987
WO 89/03872 5/1989
WO 90/06757 6/1990
WO 91/02003 2/1991
WO 91/09936 7/1991
WO 91/17242 11/1991
WO 93/01275 1/1993
WO 93/09802 5/1993
WO 94/03199 2/1994**OTHER PUBLICATIONS**Lubetzki et al. Ann. New York Acad. Sci. 605: 66-70 (Nov.
1990).
Emmerich et al Cell Transplantation 1: 401-427 (1992).
Friedmann. T.I.6.-10(6):210-214 (1994).
Orlein et al "Report & Recommendation ... Gene Therapy"
Dec. 7, 1995. NIH.
Cattaneo et al (1990) Nature 347, 762-765, 1990.
Drago et al. (Proc. Natl. Acad. Sci. USA, (Mar. 15, 1991) 88
(6) 2199-203).
Isacson et al. (Exp. Brain Res. (1989) 75 (1) 213-20).
Lindvall et al. (Archives of Neurology, (Jun. 1989) 46 (6)
615-31).
Wendt et al. (Exp. Neurology, (Feb. 1983) 79 (2) 452-61).
Kesslak et al. (Exp. Neurology, (Dec. 1986) 94 (3)
615-26).
Andres F. (J. Neural Transplantation, (1989) 1 (1) 11-22).
Price et al. (Development, (Nov. 1988) 104 (3) 473-82).
Federoff et al. (Proc. Natl. Acad. Sci. USA 89 (5). 1992.
1636-1640).
Pezzali et al Movement? Disorders C(4): 211, 1991.
Olzaz et al Thrmplantation? 1989.*

(List continued on next page.)

Primary Examiner—Anne-Marie Baker
(74) Attorney, Agent, or Firm—Mintz, Levin, Cohn, Ferris,
Glovsky and Popeo, P.C.; Ivor R. Elrif, Esq.; Christine V.
Karnakis, Esq.**(57)****ABSTRACT**The invention provides methods of transplanting multipo-
tent neural stem cell progeny to a host by obtaining a
population of cells derived from mammalian neural tissue
containing at least one multipotent CNS multipotent neural
stem cell; culturing the neural stem cell in a culture medium
containing one or more growth factors which induce mul-
tipotent neural stem cell proliferation; inducing proliferation
of the multipotent neural stem cell to produce neural stem
cell progeny which includes multipotent neural stem cell
progeny cells; and transplanting the multipotent neural stem
cell progeny to the host. Also provided are methods of
transplanting neural stem cell progeny to a host by obtaining
an in vitro cell culture containing CNS neural stem cells
where one or more cells in the culture (i) proliferates in a
culture medium supplemented with one or more mitogens,
(ii) retains the capacity for renewed proliferation, and (iii)
maintains the multipotential capacity, under suitable culture
conditions, to differentiate into neurons, astrocytes, and
oligodendrocytes; and transplanting the one or more cells to
the host.**32 Claims, 3 Drawing Sheets**